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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,259	04/20/2001	Tomohiro Kimura	041465-5109	9323

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EXAMINER

BALI, VIKKRAM

ART UNIT PAPER NUMBER

2623

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/838,259

Applicant(s)

KIMURA, TOMOHIRO

Examiner

Mehrdad Dastouri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed October 1, 2004, has been entered and made of record.
2. Applicant's arguments have been fully considered but they are not persuasive. Applicant argues in essence that prior art of record (Pickering) does not disclose, "twice differentiating a value of an image signal corresponding to a plurality of line-pixels on a single predetermined line (Edge pixels), of pixels forming a single static image".

The Examiner disagrees and indicates that Pickering clearly discloses twice differentiating a value of an image signal corresponding to a plurality of line-pixels (Page 528, Section III.A.1). Claim language does not recite a horizontal or vertical or a straight line. However, Pickering teaches that pixel intensities are twice differentiated by spatial derivatives in horizontal and vertical directions.

Applicant further argues that Pickering does not appear to teach "detecting a part sequentially changing in concentration in a partial image including the plurality of line-pixels, the partial image being a part of the static image, when the twice differentiated result is zero (Abstract, variable bit-rate (VBR) coder; CMIT encoder; Page 528, Section III.A.2), The Activity Factor; Page 531, Experimental Procedure. The minimum edge activity Σ_{\min} will result the differentiated values to be zero.).

Applicant refers to Figure 1, and the instant application disclosure, Page 3, Lines 10-22 and Page 18, Line 21 to Page 19, Line 12, to further specify the gradation part (G), also referred to as partial image, is sequentially changing in

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concentration and this concentration change is detecting by using an image signal corresponding to the line-pixels on only one line to facilitate the detection of the partial image.

The above features are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 13-15 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Pickering et al (A Perceptually Efficient VBR rate Control Algorithm; IEEE Transaction on Image Processing, ISBN: 1057-4504).

Regarding Claim 1, Pickering et al disclose an image change detecting apparatus comprising:

a differentiating device for twice differentiating a value of an image signal corresponding to a plurality of line-pixels on a single predetermined line (Edge pixels), of pixels forming a single static image (Abstract, variable bit-rate (VBR) coder; CMIT encoder; Page 528, Section III.A.1), The Spatial Derivative; Page 531, Experimental Procedure. Pixel intensities are twice differentiated by spatial

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derivatives in horizontal and vertical directions. A static image forms one frame in the moving image information.);

a detecting device for detecting a part sequentially changing in concentration in a partial image including the plurality of line-pixels, the partial image being a part of the static image (Figure 1, Sub-blocks of the luminance block), when the twice differentiated result is zero (Abstract, variable bit-rate (VBR) coder; CMIT encoder; Page 528, Section III.A.2), The Activity Factor; Page 531, Experimental Procedure. The minimum edge activity Σ_{\min} will result the differentiated values to be zero.).

Regarding Claim 2, Pickering et al disclose the image detecting device according to Claim 1, wherein the image signal is at least one of a chrominance signal and a luminance signal corresponding to the line-pixels (Page 528, Section III.A.1), pixels' luminance values; Page 527, Section III, two chrominance signals).

Regarding Claim 3, Pickering et al disclose the image detecting device according to Claim 1, wherein the line is parallel to any one of horizontal direction and vertical direction (Figure 2, the horizontal or vertical edges of the calendar).

With regards to Claim 4, arguments analogous to those presented for Claim 3 are applicable to Claim 4.

With regards to Claim 13, arguments analogous to those presented for Claim 1 are applicable to Claim 13. Pickering et al further disclose:

A coding device for, when detecting the partial image sequentially change in concentration, changing coding parameter in coding of the detected partial image to code the partial image (Pages 527-529, Section III, The Rate Control Algorithm, Equation 6, Compensation for Coding Errors).

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With regards to Claim 14, arguments analogous to those presented for Claim 2 are applicable to Claim 14.

With regards to Claim 15, arguments analogous to those presented for Claim 3 are applicable to Claim 15.

With regards to Claims 18-20, arguments analogous to those presented for Claim 1 are applicable to Claims 18-20.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5-12, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pickering et al (A Perceptually Efficient VBR rate Control Algorithm; IEEE Transaction on Image Processing, ISBN: 1057-4504).

Regarding Claim 5, Pickering et al disclose the image detecting device according to Claim 1, wherein the static image is a part of moving image information to be coded (Abstract, VBR video coder; Section I, CMIT encoder; Figure 2, Frame "0" from the sequence "Mobile and Calendar").

Pickering et al do not explicitly disclose coding by an MPEG (Moving Picture Experts Group) system.

Coding by an MPEG (Moving Picture Experts Group) system is extremely well known in image processing (Official Notice).

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It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Pickering et al's invention to perform coding by an MPEG system because it is a well known methodology routinely implemented in the art for optimal and expedited coding.

With regards to Claims 6-12, 16 and 17, arguments analogous to those presented for Claim 5 are applicable to Claims 6-12, 16 and 17.

Conclusion

7. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehrdad Dastouri whose telephone number is (571) 272-7418. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (571) 272-7414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mehrdad Dastouri
Primary Examiner
Group Art Unit 2623
May 31, 2005

MEHRDAD DASTOURI
PRIMARY EXAMINER

Mehrdad Dastouri